

REMARKS

Claims 11-16 and 18-26 are pending in this application. Claims 11-16 and 18-21 are newly rejected under 35 USC 112, second paragraph. The rejection of claims 11-15, 18-21 and 25 under 35 USC 103(a) as being unpatentable over Kurz in view of Kear has been maintained, as has the rejection of claims 16 and 26 under 35 USC 103(a) as being unpatentable over Kurz in view of Kear and further in view of Caballero. Claims 22-24 are newly rejected as being unpatentable under 35 USC 103(a) over Esch in view of Kear.

Rejections under 35 USC 112:

Independent claim 11 has been amended herein to eliminate the indefinite term “undesirable” and to replace it with the term “structure defect” as described in the substitute specification at paragraphs 0038 and 0039. Structure defect is a term that is well understood in the art, and one example of a structure defect is discussed in paragraph 0038 as being globular grains. No new matter is added, nor does this change necessitate a new search. Accordingly, entry of this amendment is respectfully requested in order to place the claims into better form for consideration upon appeal by eliminating this Section 112 issue.

Maintained Section 103 rejections of claims 11-16, 18-21, 25 and 26:

The Applicant appreciates the Examiner’s remarks regarding these rejections, however, the Applicant is still not persuaded that the cited patents to Kurz, Kear and Caballero provide a proper basis for the rejections under 35 USC 103.

The Applicant retains the positions presented in the previous paper submitted under 37 CFR 1.111. In addition, the following comments are provided in response to the Examiner’s remarks.

The Examiner states on page 13 of the final rejection that Kurz teaches that “one of the middle layers can be considered as an intermediate layer in which the other single crystalline layers are grown epitaxially over the intermediate layer..” and on page 14 that “Kear et al (‘229)

teach a strong motivation for modifying the process of Kurz et al. ('792) through providing a non single-crystal or non-directional structure intermediate layer.” However, to provide the non single-crystal or non-directional intermediate layer of Kear into the structure of Kurz would change the principle of operation of Kurz, since the whole purpose of Kurz is to maintain the same crystal structure throughout. Accordingly, the Examiner is respectfully requested to reconsider these rejections prior to appeal.

New rejection of claims 22-24 as being unpatentable under 35 USC 103(a) over Esch in view of Kear:

The Examiner is urged to reconsider and withdraw the new rejection of claims 22-24 in view of the following comments.

The Examiner states at the bottom of page 10 and continuing onto page 11 of the final rejection that “Esch et al. (361) teach a component comprising a vane (4) as a substrate having a single-crystalline structure...” However, the vane (4) substrate of Esch is actually the equiaxed cast or wrought alloy, not the single crystal material. Thus, what Esch teaches is simply a amorphous cast or wrought alloy (4) joined by a weld or braze (7) to a single crystal material (3). This structure teaches away from the structure of claims 22-24 which requires two single crystal materials joined by an intermediate layer. The addition of Kear does not remedy this teaching-away, and thus the combination fails to establish a *prima-facie* case for the obviousness of claims 22-24, and withdrawal of these rejections is respectfully requested.

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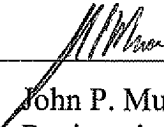
Conclusion

Entry of this amendment is respectfully requested in order to place the application into condition for allowance, or in the alternative, to place the claims into better form for consideration upon appeal.

The commissioner is hereby authorized to charge any appropriate fees due in connection with this paper, including the fees specified in 37 C.F.R. §§ 1.16 (c), 1.17(a)(1) and 1.20(d), or credit any overpayments to Deposit Account No. 19-2179.

Respectfully submitted,

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